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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,366

12/22/2005

Torsten Kulke

TM/4-22906/A/PCT

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EXAMINER

NGUYEN, KHANH TUAN

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

08/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,366	Applicant(s) KULKE ET AL.	
	Examiner KHANH T. NGUYEN	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE filed on 07/07/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/07/2008 has been entered.

2. The amendment filed on 07/07/2008 is entered and acknowledged by the Examiner. Claims 1-14 are currently pending in the instant application.

Withdrawn Rejection

3. The provisional rejection of claims 1, 2, 4, 5, 10, and 11 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over copending Application No. 09/790,759 is withdrawn in light of the abandonment of the copending Application No. 09/790,759. The rejection of claims 1-5, 10, 11, and 13-14 under 35 U.S.C. 102(b) as being anticipated by Moors et al. (U.S. Pub. 2002/0007517) is withdrawn in view of Applicant's amendment. The rejection of claims 1, 2, 4, 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trinh et al. (U.S. Pat.

6,284,231 hereinafter, "Trinh") in view of Laughlin et al. (U.S. Pat. 3,925,262) is withdrawn in view of Applicant's amendment. The rejection of claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohama (JP Pub. 2000-345106) is withdrawn in view of Applicant's amendment. The rejection of claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. (JP Pub. 10-025442) is withdrawn in view of Applicant's amendment. The rejection of claims 6-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moors et al. (U.S. Pub. 2002/0007517) in view of Reuscher et al. (U.S. Pat. 5,728,823) is withdrawn in view of Applicant's amendment.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 10-11, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moors et al. (U.S. Pub. 2002/0007517 hereinafter, "Moors") in view of Latta et al. (U.S. Pat. 4,104,443 hereinafter, "Latta") and further in view of Hannemann (U.S. pat. 5,145,486 hereinafter, "Hannemann").

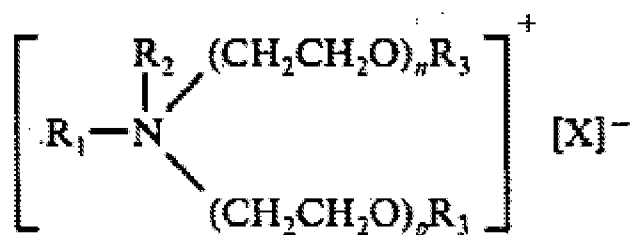
With respect to claims 1-3, 10, and 11, Moors teaches an aqueous dispersion for treating textiles fabrics [0044] comprising of A) an unsubstituted cyclodextrin or a

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mixture of such cyclodextrins such as alpha-cyclodextrin, beta-cyclodextrin, and gamma-cyclodextrin [0007, 0020], B) a n aliphatic carboxylic acid of 8 to 24 carbon atoms [0008], C) a cationic surfactant (i.e. emulsifier) or a mixture of surfactants [0009 and 0042]. Moors also teaches the aqueous composition may further comprises of a cellulose crosslinker such as dimethyloldihydroxyethyleneurea [0014].

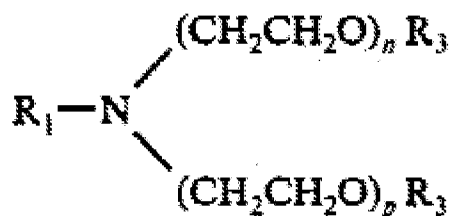
The differences between the instant applicant and Moors reference is that Moors does not suggest the emulsifier consisting of the claimed compound structures in the claimed ration of 1:2 as recited in claim 1.

However, Latta teaches an aqueous composition useful in laundering fabric such as synthetic thermoplastic or natural textile material such as wool (Col. 4, lines 61-64) to provide antistatic properties (Col. 1, lines 5-6 and Col. 2, lines 14-18). Latta teaches the aqueous composition may be used in dyeing process (Example 4). The aqueous composition of Latta comprises of melamine derivative such as dimethyloldihydroxyethyleneurea (DMDHEU), dimethylolethyleneurea (DMEU), and urons which serve as a crosslinker (Col. 1, lines 65-68 and Col. 3, line 46 to Col. 4, line 10) and a cationic ethoxylated quaternary salts and amine compounds having at least 2 polyoxyalkylene substituents on the nitrogen atom (Col. 2, lines 2-8). Latta teaches the ethoxylated quaternary salts having a formula:



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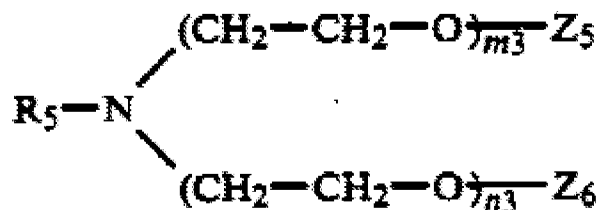
wherein R_1 is an alkyl group of 8 to 22 carbon atoms; R_2 may be an alkyl group of 1 carbon atom (methyl group); R_3 may be a hydrogen; n and p are integers of from 5 to 60, and X^- is an anion (Col. 2, lines 34-56) and amine compound of formula:



wherein R_1 is an alkyl group of 8 to 22 carbon atoms; R_3 may be a hydrogen; n and p are integers of from 5 to 60 (Col. 2, lines 57-66). The sum of integers of n and p may be 14 in various combinations. For example when n is equal to 5, p can 9 to satisfy the claimed limitation.

Latta reference does not suggest an amine emulsifier having the claimed compound structures in the claimed ration of 1:2 as recited in claim 1.

Hannemann a process for producing non-skittery and leveling dyeing on wool comprising an aqueous liquor of an ethoxylated quaternary agent of formula (1b) (Col. 1, lines 33-45 and Col. 3, lines 46-52). The said ethoxylated quaternary agent (1b) may be combined with compound (4a) (Col. 3, lines 8-13). Compounds (4a) and (4b) having a formula:



wherein R_5 is an aliphatic radical of 12 to 24 carbon atoms; one of Z_5 or Z_6 is hydrogen and the other is SO_3M , wherein M may be ammonium (NH_4); and the sum of m_3 and n_3 is 5 to 12. (Col. 2, line 50 to Col. 3, line 6). Hannemann further teaches the weight ratio of component (a) to component (b) is from 1:5 to 10:1, preferably from 1:2 to 5:1 (Col. 4, lines 40-41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the amine emulsifier of Latta by substituting one R_3 group of Latta (i.e. hydrogen group) with a Z_5 or Z_6 of Hannemann which is SO_3M group (wherein M may be ammonium) to provide non-skittery and leveling dyeing on wool fabric as suggest by Hannemann.

In addition, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the aqueous dispersion of Moors by incorporating a combination of ethoxylated quaternary emulsifier and amine emulsifier as suggested by Latta in order to provide antistatic properties to the fabric.

Furthermore, it is within the expected skills of one having ordinary skill in the art to arrive at the optimum proportions of ingredients (i.e. emulsifier one is one third the weight of emulsifier two) through routine experimentation for best results.

Regarding claims 4 and 5, Moors teaches the amount ratio of unsubstituted cyclodextrin (Component A) is in the range from 10 to 20 parts by weight, aliphatic carboxylic acid (Component B) is in the range 25 to 80 parts by weight and surfactant or emulsifier (Component C) is in the range 25 to 150 parts by weight [0037-0040]. Moors further teaches the aqueous dispersion comprising of 10-40 weight percent of the total sum of component A, B, and C [0043].

Regarding claims 13 and 14, Moors teaches a textile treatment process wherein a textile fabric material such as wool, cotton, nylon or polyester is treated with the aqueous dispersion finisher composition to affix the finish to the textile [0002, 0044, and 0045].

6. Claims 6-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moors (U.S. Pub. 2002/0007517) in view of Latta (U.S. Pat. 4,104,443) further in view of Hannemann (U.S. pat. 5,145,486) as applied to the above claims, and further in view of Reuscher et al. (U.S. Pat. 5,728,823 hereinafter "Reuscher").

Moors, Latta, and Hannemann are relied upon as set forth above. With respect to instant claim 6, Moors, Latta, and Hannemann did not explicitly disclose a textile cleaning material wherein the reactive group of the cyclodextrin derivative is a nitrogen-containing heterocycle having at least one substituent selected from the group consisting of halogen and unsubstituted or substituted pyridinium.

In an analogous art, Reuscher teaches an aqueous polymer dispersion composition for treating textile and may be employed for finishing the textile material (Col. 11, lines 36-37 and Col. 12, lines 57-60). Reuscher also teaches a reactive cyclodextrin derivative containing at least one nitrogen-containing heterocycle having at least one electrophilic center (Col. 1, lines 41-43). The electrophilic center can be identical or different and are carbon atoms to which halogen, in particular F or Cl, or unsubstituted or substituted pyridinium is covalently bonded (Col. 1 lines 46-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to formulate an aqueous dispersion composition of Moors in view of Latta and further in view of Hannemann with a reactive cyclodextrin derivative as taught by Reuscher that contain a nitrogen-containing heterocycle having a electrophilic center unsubstituted or substituted pyridinium in order to provide chemical bonding between the cyclodextrin derivative to the polymer or cellulose textile fiber.

Regarding claims 7-9, Reuscher further discloses the reactive group of the cyclodextrin derivative is a) a triazine group of formula (8) wherein R_7 is fluorine, chlorine, unsubstituted or carboxy-substituted pyridinium or hydroxy, and R_8 is as defined above for R_7 or is a radical of formula $-OR_9$ or $--N(R_{10})R_{11}$, wherein R_9 is hydrogen, alkali, C_1 - C_8 alkyl which is unsubstituted or substituted by hydroxy or C_1 - C_4 alkoxy, and R_{10} and R_{11} , independently from each other, are hydrogen (Col. 4, lines 50-60); or b) a pyrimidinyl group of formula (9) wherein one of radicals R_{12} and R_{13} is

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fluorine or chlorine and the other one of radicals R_{12} and R_{13} is fluorine, chlorine, or is a radical of formula $-OR_9$ or $--N(R_{10})R_{11}$ as defined above, and R_{14} is C_1 - C_4 alkylsulfonyl, C_1 - C_4 alkoxysulfonyl, C_1 - C_4 alkoxycarbonyl, C_2 - C_4 alkanoyl, chlorine, nitro, cyano, carboxyl or hydroxyl (Col. 3, lines 45-60); or c) a dichloroquinoxaline group of formula (10) (Col. 4, lines 10-15).

Regarding claim 12, Reuscher further discloses a buffer selected from the group consisting of phosphates, carbonates, acetates and citrates (Col. 6, lines 50-57).

Response to Arguments

7. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHANH T. NGUYEN whose telephone number is (571)272-8082. The examiner can normally be reached on Monday-Friday 8:00-5:00 EST PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lorna M Douyon/
Primary Examiner, Art Unit 1796

/KTN/
07/30/2008